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A MULTI-USER ACQUISITION PROCEDURE FOR POINT-TO-MULTIPOINT
SYNCHRONOUS CDMA SYSTEMS

ABSTRACT OF THE DISCLOSURE

Disclosed are methods for acquiring a forward channel in a point-to-multipoint CDMA system. One method includes the steps of (a) despreading a received CDMA signal with a first pn code that is known to be present in the received CDMA signal and obtaining a first measure of received signal level; (b) despreading the received CDMA signal with a second pn code that is known not to be present in the received CDMA signal and obtaining a second measure of received signal level; and (c) synchronizing to a desired channel using a difference between the first and second signal levels. In this method the first step of despreading despreads a continuously transmitted side-channel, and the step of synchronizing synchronizes to the side-channel. Also, the step of obtaining a first measure of received signal level obtains a correlation peak, and the step of obtaining a second measure of received signal level obtains a correlation null. Preferably, the steps of despreading and obtaining are accomplished iteratively over a range of n first pn code phase states and over a range of n second pn code phase states.

09005938-011298